CLAIMS

What is claimed is:

1.   A method for an event analyzer comprising:

providing a plurality of virtual events supported by a platform for selection, wherein the virtual events are generated by a plurality of platform components;

interrupting execution of an instruction at a time a selected virtual event occurs;

storing the interrupted instruction; and

analyzing the selected virtual event.

2.   The method of claim 1 further comprising:

providing a driver interface to associate with each of the platform components, wherein the driver interface supplies a definition of the virtual events generated by the associated platform component.

3.   The method of claim 1 further comprising:

allocating a sampling buffer for the platform component generating the selected virtual event to store the interrupted instruction.

4.   The method of claim 1 further comprising:

providing a user interface to receive a user definition of the virtual events.

5.   The method of claim 1 wherein analyzing the selected virtual event comprises:

calculating a frequency of the selected virtual event occurring at a time an instruction module is executed.

6.   The method of claim 1 wherein storing the interrupted instruction further comprises:

time-stamping the interrupted instruction.

7.   The method of claim 1 further comprising:

assigning an interrupt vector to the selected virtual event, wherein the interrupt vector is accessed at a time the selected virtual event occurs.

8.   The method of claim 1 further comprising:

reporting an analysis at a time the instruction execution reaches a user-specified time limit.

9.   The method of claim 1 wherein storing the interrupted instruction further comprises:

storing information of an instruction module containing the interrupted instruction.

10.   A system of an event analyzer comprising:

a processor to execute instructions;

a plurality of platform components sharing a platform with the processor;

a plurality of virtual event provider drivers, each of the virtual event provider drivers being associated with one of the platform components to provide definitions for virtual events supported by the associated platform component; and

a virtual event provider manager to query the virtual event provider drivers about the supported virtual events, wherein the virtual event provider manager causes selected virtual events to be analyzed.

11.   The system of claim 10 further comprising:

a plurality of sampling buffers, each of the sampling buffers being assigned to each of the platform components that generate the selected virtual events, the sampling buffers storing the instructions being interrupted at a time the selected virtual events occur.

12. The system of claim 10 the virtual event provider manager and virtual event provider drivers further comprise:

a forwarding mechanism to forward user-specified configuration values to the platform components.

13. The system of claim 10 further comprising:

a report generator to generate a report that allows a user to identify the interrupted instructions.

14. The system of claim 10 further comprising:

an event map table accessible by the virtual event provider manager to store a mapping between local indices of the support virtual events and platform-wide event identifiers.

15. The system of claim 10 wherein the virtual event provider drivers respond to the query by sending an event identifier and an interrupt vector for each of the supported virtual events.

16. A machine-readable medium having instructions therein which when executed cause a machine to:

provide a plurality of virtual events supported by a platform for selection, wherein the virtual events are generated by a plurality of platform components;

interrupt execution of an instruction at a time a selected virtual event occurs;

cause the interrupted instruction to be stored; and

cause the selected virtual event to be analyzed.

17. The machine-readable medium of claim 16 further comprising instructions operable to:

allocate a sampling buffer for the platform component generating the selected virtual event to store the interrupted instruction.

18.   The machine-readable medium of claim 16 wherein interrupting execution of an instruction further comprises instructions operable to:

interrupt the execution at a pre-determined sampling rate.

19.   The machine-readable medium of claim 16 wherein causing the selected virtual event to be analyzed further comprises instructions operable to:

calculate a frequency of the selected virtual event occurring at a time an instruction module is executed.

20.   The machine-readable medium of claim 16 wherein causing the interrupted instruction to be stored further comprises instructions operable to:

time-stamp the stored interrupted instruction.

21.   The machine-readable medium of claim 16 further comprising instructions operable to:

assign an interrupt vector to the selected virtual event, wherein the interrupt vector is accessed at a time the selected virtual event occurs.

22.   The machine-readable medium of claim 16 wherein causing the interrupted instruction to be stored further comprises instructions operable to:

store information of an instruction module containing the interrupted instruction.